



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,511	06/18/2007	Peter A. Stegmaier	16455.12	6668
97149 7590 03/02/2011 Maschoff Gilmore & Israelsen 1441 UTE BLVD STE 100 Park City, UT 84098-7633				
EXAMINER WYCHE, MYRON				
ART UNIT 2617		PAPER NUMBER		
NOTIFICATION DATE 03/02/2011		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@mgiiip.com
jgadd@mgiiip.com

Office Action Summary

Application No.

10/598,511

Applicant(s)

STEGMAIER ET AL.

Examiner

MYRON WYCHE

Art Unit

2617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 51-77, 80 and 83-100 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 51-77, 80 and 83-100 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-945)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/23/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 11/18/10 have been fully considered but they are not persuasive. Applicant primarily argues:

Applicant primarily argues that Gudat et al. is silent with respect to the newly added limitation of independent claims 51 and 83 of:

preparing an individualized dataset specific to an identified site-modifying mobile apparatus mobile apparatus, said individualized dataset comprising at least selected worksite management attribute parameter values for the requirements of that identified site-modifying mobile apparatus, wherein said individualized dataset relates only to cells of a region of said worksite where said identified site-modifying apparatus is programmed to be resent over a determined time window.

However, this newly added limitation to claims 51 and 83, as Applicant's representative admits in his argument, is merely a combination of the limitations previously recited in now cancelled dependent claims 78 and 79. Applicant respectfully submits that the previously recited rejections of claim 78 and 79 disclose these claimed limitations and will be incorporated in the rejections to these independent claims.

In particular, Applicant's representative argues that: "Gudat is silent with respect to the issue of "preparing individualized datasets" and that the "terrain map" disclosed by Gudat et al.: "corresponds to the entire area of the work site". However, with regards to this argument, it is respectfully submitted that Gudat et al. explicitly discloses:

With knowledge of its current position relative to the fixed reference point 64, a mobile node can determine **which, if any of its available terrain maps 32 are appropriate for use at a particular position** (FIG. 9: ref. 64; col. 12, lines 24-29).

That is, Gudat et al. discloses a plurality of "available terrain maps" and not just one terrain map that "corresponds to the entire area of the work site" as suggested by this argument.

Further, Gudat et al. discloses the terrain map 32 as:

an x and y offset in the desired units of measurement from a fixed reference location, **the size of the terrain map in terms of range and resolution in meters and the age threshold** (col. 12, lines 10-13).

That is, Gudat et al. discloses a plurality of sizes, ranges, resolutions and "age threshold" is available for the terrain maps provided.

Thus, as a result of the above discussion, it is respectfully submitted that Gudat et al. discloses: "individualized data set specific to an identified site-modifying mobile apparatus" based on its current position relative to the fixed reference point **64**, and that these terrain maps are available with various ranges, resolutions and age thresholds, all of which are characteristics that could be used to address the indicated limitations of the amended claims. Therefore, it is respectfully submitted that Gudat et al. discloses the limitations of the amended independent claims which further includes claim 80. The rejections are repeated below taking into account the present amendment to the claim.

Specification

As a result of the present amendment, the objection to the abstract of the disclosure is withdrawn.

Claim Rejections - 35 USC § 101

As a result of the present amendment, the U.S.C. 101 rejection to the claims is withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 51- 77, 80 and 83 - 100 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,771,609 (Gudat et al).

Regarding claims 51 and 83, Gudat et al. discloses: "dividing at least part of said worksite area into elementary cells mapped in correspondence with the topology of said area, or into said cells and determined communication zones" (FIG. 5; col. 7, line 63- col. 8, line 8: **"wide-area wireless network coverage"** and **"local-area wireless network coverage"**; col. 18, line 60 – col. 19, line 4: **"implemented to cover multiple work sites and multiple machines at each work site"**); "for a given cell or communication zone of said worksite, establishing at least one communication attribute value pertaining to a parameter of wireless communication to or from said given cell or communication zone" (FIG. 5; col. 7, line 63- col. 8, line 8: **"local area wireless networks as shown in FIG. 5, each providing high speed coverage over a portion**

of the site”); “for a given cell, establishing at least one worksite management attribute value of the worksite for said given cell, said worksite management attribute value pertaining to a parameter other than a said communication attribute parameter” (FIG. 6: **20, 30, 32, 36; col. 10, lines 29 - 35: “position acquisition system” and “environment/terrain map”**); “storing, in a memory, values of said worksite management and communication attributes, each stored attribute value being electronically indexed to the elementary cell, or to the communication zone, for which it was determined” and “forming a said worksite management message with an electronically readable content containing at least one worksite management attribute value” (col. 11, line 58 – col. 12, line 35: **“a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength” “time”**); “accessing said memory to obtain at least one current communication attribute value in respect of a cell or communication zone to or from which said formed management message is to be communicated by a wireless communication” (FIG. 8: **40, 42, 44, 48, 50, 52, 54; col. 10, line 29 – col. 11, line 6: “The current strength of local area network communication is acquired” and “check to see if environment/terrain map 32 is available”**); and “establishing a wireless communication to or from said cell or communication zone to send or receive said management message on the basis of said current communication attribute value(s) electronically accessed from said memory” (FIG. 7; col. 9, lines 14 – 55: **“The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while**

the decision to switch from the WAN to LAN is made based upon empirically measured data”); and preparing an individualized dataset specific to an identified site-modifying mobile apparatus, said individualized dataset comprising at least selected worksite management attribute parameter values for the requirements of that identified site-modifying mobile apparatus, wherein said individualized dataset relates only to cells of a region of said worksite where said identified site-modifying apparatus is programmed to be resent over a determined time window (**col. 11, line 58 – col. 12, line 35: “a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength” “time”; FIG. 12: 80; col. 16, line 49 – col. 17, line 23: “coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70”; and “The front shovel 80 is a track-type machine which performs various earthmoving operations on the work site 70. It will become apparent, however, that the principles and applications of the present invention will lend themselves to virtually any mobile tool or machine”; col. 11, line 16 – col. 12, line 35: “a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength” “time”; and “The age threshold of a work area might only be valid for a relatively short period of time where the terrain changes more rapidly”; FIG. 9: ref. 64; col. 12, lines 10-13 and 24-29).**

With respect to claim 52, Gudat et al. discloses: "said memory is provided as a common resource whose contents are accessible to communicating parties exchanging worksite management messages" (FIG. 6: 20, 30, 32, 36; col. 10, lines 29 - 35: **"environment/terrain map"**; col. 11, line 58 – col. 12, line 35: **"Model Daemon 22 tracks its position across the environment/terrain map 32 and records the empirically collected values into these storage locations"**; col. 16, line 60 – col. 17, line 23: **"coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70"**; col. 18, line 60 – col. 19, line 4: **"implemented to cover multiple work sites and multiple machines at each work site"**).

Regarding claims 53 and 84, Gudat et al. discloses: "said at least one communication attribute is at least one of the members of the set of following attributes: a communication frequency or channel allocation; a signal strength indicator, indicating a signal strength to use; a bandwidth capacity indicator; a detected signal-to-noise ratio; data communication security parameters, such as encryption/decryption codes, keys; data messaging format information; and data transmission protocol information" (col. 11, line 58 – col. 12, line 35: **"a grid that has been placed on the ground over areas where local area network coverage exists"** and **"a storage location which holds three values": "elevation", "signal strength", "time"**).

With respect to claim 54, Gudat et al. discloses: "the act of indexing in said memory worksite management attributes and communication attributes to a common

elementary cell to which they pertain” (col. 11, line 58 – col. 12, line 35: **“a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength”, “time”**).

Regarding claims 55 and 85, Gudat et al. discloses: “analysing a detected wireless communication signal at a determined elementary cell or communication zone”; “determining, on the basis of said analysis, whether a value of a said communication attribute of that signal is appropriate under current wireless communication conditions”; and “if said value of a said communication attribute is determined not to be appropriate, sending a message to said memory to cause the value of said communication attribute to be updated to an appropriate value, or to adjust the value of another communication parameter” (FIG. 8, 50: **“HAS HISTORICAL SIGNAL STRENGTH EXPIRED?”**, 54; col. 10, line 29 – col. 11, line 6: **“The current strength of local area network communication is acquired” and “using RF propagation and communications model 34 to predict future signal strength value at block 54”**).

With respect to claims 56 and 86, Gudat et al. discloses: “sending a message directly to the source of said detected wireless signal to cause said source to update the value of said communication attribute to an appropriate value or to adjust the value of another communication parameter” (FIG. 8, 50: **“HAS HISTORICAL SIGNAL STRENGTH EXPIRED?”**, 54; col. 10, line 29 – col. 11, line 6: **“The current strength of local area network communication is acquired” and “using RF propagation and communications model 34 to predict future signal strength value at block 54”**).

Regarding claims 57 and 87, Gudat et al. discloses: "for at least one communication attribute, said memory stores a plurality of values indexed as a function of at least one of the following set: a classification of the wireless communication sending party; a classification of the wireless communication receiving party; a classification of a worksite management attribute to be conveyed in a said worksite management message; a location of the wireless communication sending party; and a location of the wireless communication receiving party" (**col. 11, line 58 – col. 12, line 35: "a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength", "time").**

With respect to claims 58 and 88, Gudat et al. discloses: "the act of establishing or maintaining a radio link at a receiving party, comprising the steps of: accessing at least one stored communication attribute value; and automatically configuring receiver means of said receiving party on the basis of a said accessed communication attribute value(s)" (**FIG. 7: "UPDATE"; col. 9, lines 14 – 55: "The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data").**

Regarding claims 59 and 89, Gudat et al. discloses: "the act of establishing or maintaining a radio link at a transmitting party, comprising the steps of: accessing at least one stored communication attribute value; and automatically configuring transmitter means of said transmitting party on the basis of a said accessed

communication attribute value(s) (FIG. 7: “UPDATE”; col. 9, lines 14 – 55: “**The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data**”).

With respect to claims 60 and 90, Gudat et al. discloses: “wherein a said communication attribute is a radio frequency or channel allocation, for exchanging data with a remote resource, said method further comprising the act of automatically updating and using said updated radio frequency or channel allocation as a function of communication conditions (FIG. 7: “UPDATE”; col. 9, lines 14 – 55: “**The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data**”; col. 12, lines 44 – 50: “**based on ... the radio frequency used by the transmission equipment**”).

Regarding claims 61 and 91, Gudat et al. discloses: “a said communication attribute is signal strength indicator specifying a modulation or carrier signal strength value to use for a transmission in a communication link, said method further comprising the acts of: detecting a received signal strength at a receiving party”; “determining whether said received signal strength is below a threshold”; and “if the received signal strength is below the threshold, sending a message by the receiving party to correspondingly update said signal strength indicator value in said memory accessible to communicating parties” (FIG. 8, 50: “**HAS HISTORICAL SIGNAL STRENGTH EXPIRED?**”, 54; col. 10, line 29 – col. 11, line 6: “**The current strength of local area**

network communication is acquired" and "using RF propagation and communications model 34 to predict future signal strength value at block 54").

With respect to claims 62 and 92, Gudat et al. discloses: "a said communication attribute is a bandwidth capacity parameter expressing the bandwidth capacity limit of a given carrier or channel over a given communication link, said method further comprising the acts of: determining the current amount of occupied bandwidth of a given communication carrier or channel"; "comparing said current amount of occupied bandwidth with the bandwidth capacity limit, indicated by said bandwidth capacity parameter, for that given communication carrier or channel, to determine if a determined saturation criterion is reached"; and "in the affirmative, sending a message to said memory and/or to communicating parties concerned, requesting to use another carrier or channel" (FIG. 5; col. 7, line 63- col. 8, line 8: **"low speed coverage" (i.e., narrow bandwidth => lower capacity); "high speed coverage" (i.e., wide bandwidth => higher capacity) "wide-area wireless network coverage" and "local-area wireless network coverage"; FIG. 7: "UPDATE"; col. 9, lines 14 – 55: "The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data")**).

Regarding claim Gudat et al. 63, discloses: "said stored worksite and communication attribute parameter values are organised in a three-dimensional matrix of which the first and second dimensions map the topology of said worksite area and define the locations of said elementary cells or communication zones, and the third

dimension corresponds to the set of worksite management and communication attribute parameter(s)" (col. 11, line 58 – col. 12, line 35: **"a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength", "time"; position/location "on the ground"**).

With respect to claim Gudat et al. 64, discloses: "a said elementary cell is dimensioned as a function of at least one of the following set: the variation in contour at said cell; the variation in contour at the immediate vicinity of said cell"; "the rate of variation with respect to position in the value of at least one data to be managed"; and "the type of tool(s) scheduled to operate in the area occupied by said elementary cell" (col. 11, line 58 – col. 12, line 35: **"a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength", "time" and "Model Daemon 22 tracks its position across the environment/terrain map 32 and records the empirically collected values as into these storage locations"**).

Regarding claim 65, Gudat et al. discloses: "dimensions of elementary cells are variable over said worksite area" FIG. 5; col. 7, line 63- col. 8, line 8: **"wide-area wireless network coverage" and "local-area wireless network coverage"**; col. 18, line 60 – col. 19, line 4: **"implemented to cover multiple work sites and multiple machines at each work site"**).

With respect to claim 66, Gudat et al. discloses: "wherein communication attribute and/or worksite management attribute values are acquired and communicated

and/or stored by mobile apparatus as they are conducting site modifying tasks on the worksite" (col. 11, line 58 – col. 12, line 35: **"a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength" "time"; FIG. 12: 80; col. 16, lines 49-59: "a geography altering machine such as a front shovel 80 shown on location at a work site 70. The front shovel 80 is a track-type machine which performs various earthmoving operations on the work site 70).**

Regarding claims 67 and 94, Gudat et al discloses: "interrogating at least one source of dynamically updatable data, on board mobile apparatus active on said worksite, capable of delivering at least one current attribute parameter value for a communication attribute and/or for a worksite management attribute"; "determining the geographical location at which said current value(s) is/are acquired"; and "storing said attribute parameter value(s) acquired at said interrogating step, in association with the cell or communication zone corresponding to the said determined geographical location, as an updated communication attribute and/or a worksite management attribute parameter value" (FIG. 8, 50: **"HAS HISTORICAL SIGNAL STRENGTH EXPIRED?"**, 54; col. 10, line 29 – col. 11, line 6: **"The current strength of local area network communication is acquired" and "using RF propagation and communications model 34 to predict future signal strength value at block 54"; col. 11, line 58 – col. 12, line 35: "a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength" "time").**

With respect to claims 68 and 95, Gudat et al discloses: "wherein a said updated communication attribute and/or worksite management attribute value is sent to a remote data management resource for dynamically updating said stored data values by at least the acts of: forming a message containing said communication attribute and/or a worksite management attribute parameter value(s) and said geographical location data; and sending said message to said remote data management resource" (FIG. 6: 20, 30, 32, 36; col. 10, lines 29 - 35: "environment/terrain map"; col. 11, line 58 – col. 12, line 35: "Model Daemon 22 tracks its position across the environment/terrain map 32 and records the empirically collected values into these storage locations"; FIG. 7: "UPDATE"; col. 9, lines 14 – 55: "The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data"; FIG. 8, 50: "HAS HISTORICAL SIGNAL STRENGTH EXPIRED?", 54; col. 10, line 29 – col. 11, line 6: "The current strength of local area network communication is acquired" and "using RF propagation and communications model 34 to predict future signal strength value at block 54").

Regarding claims 69 and 96, Gudat et al. discloses: "interrogating at least one source of dynamically updatable data on board said mobile apparatus, capable of delivering at least one current communication attribute and/or worksite management attribute parameter value"; "determining the geographical location at which said current value(s) is/are acquired"; and "associating and locally storing said current communication attribute and/or worksite management attribute parameter value(s) and

said geographical location data on board said mobile apparatus" (**FIG. 8, 50: "HAS HISTORICAL SIGNAL STRENGTH EXPIRED?"**, **54**; **col. 10, line 29 – col. 11, line 6: "The current strength of local area network communication is acquired"** and **"using RF propagation and communications model 34 to predict future signal strength value at block 54"**; **col. 11, line 58 – col. 12, line 35: "a grid that has been placed on the ground over areas where local area network coverage exists"** and **"a storage location which holds three values": "elevation", "signal strength" "time")**).

With respect to claims 70 and 97, Gudat et al. discloses: "further comprising the act of uploading said communication attribute and/or a worksite management attribute parameter value(s) and said geographical location data from said mobile apparatus to a remote data management resource at a determined updating moment" (**FIG. 7; col. 9, lines 14 – 55: "The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data"** and **"Model Daemon 22 will send an "update" command to the Mobile IP software on this node. Update commands are sent periodically to ensure that the Model Daemon 22 and mobile node M remain synchronized"**).

Regarding claims 71 and 98, Gudat et al. discloses: "the value(s) of at least one said communication attribute and/or worksite management is/are dynamically updatable, and acquired and communicated on-the-fly by, and as, a mobile apparatus performs worksite modifying tasks evolves over said worksite area" (**FIG. 6: 20, 30, 32,**

36; col. 10, lines 29 - 35: "environment/terrain map"; col. 11, line 58 – col. 12, line 35: "Model Daemon 22 tracks its position across the environment/terrain map 32 and records the empirically collected values into these storage locations"; col. 16, line 60 – col. 17, line 23: "coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70"; col. 11, line 58 – col. 12, line 35: "a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength" "time"; FIG. 12: 80; col. 16, lines 49-59: "a geography altering machine such as a front shovel 80 shown on location at a work site 70. The front shovel 80 is a track-type machine which performs various earthmoving operations on the work site 70).

With respect to claim 72, Gudat et al. discloses: "wherein at least one worksite management attribute relates to physical or chemical material characteristics of said worksite and/or physical or chemical atmospheric characteristics of said worksite" (col. 11, line 58 – col. 12, line 35: "a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength" "time").

Regarding claim 73, discloses: "wherein at least one worksite management attribute parameter value is inferred from operating parameters of a site-modifying apparatus operative in said worksite area" (FIG. 6: 20, 30, 32, 36; col. 10, lines 29 - 35: "environment/terrain map"; col. 11, line 58 – col. 12, line 35: "Model Daemon 22

tracks its position across the environment/terrain map 32 and records the empirically collected values into these storage locations"; col. 16, line 60 – col. 17, line 23: "coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70"; col. 11, line 58 – col. 12, line 35: "a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength" "time"; FIG. 12: 80; col. 16, lines 49-59: "a geography altering machine such as a front shovel 80 shown on location at a work site 70. The front shovel 80 is a track-type machine which performs various earthmoving operations on the work site 70).

With respect to claim 74, Gudat et al. discloses: "wherein at least one worksite management attribute value is established prior to site modifying operations on said worksite and relates to a non-dynamic land characteristic of said worksite" (**col. 16, line 60 – col. 17, line 23: "coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70" and "stored with digitized models of the work site 70 prior to alteration and a desired topography of the work site")**).

Regarding claim 75, Gudat et al. discloses: "wherein said at least one worksite management attribute value is established prior to site modifying operations on said worksite and relates to operating characteristics of mobile apparatus" (**col. 16, line 60 –**

col. 17, line 23: “coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70” and “stored with digitized models of the work site 70 prior to alteration and a desired topography of the work site after alteration is completed”).

With respect to claim 76, Gudat et al. discloses: “wherein said at least one worksite management attribute value is established prior to site modifying operations on said worksite and relates to legal, administrative, or contractual data associated to said worksite” (col. 11, line 58 – col. 12, line 35: **“a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength”, “time”**). It is respectfully submitted that “elevation” can inherently be a part of a legal/contractual description of the work site property.

Regarding claim 77, Gudat et al. discloses: “wherein at least one worksite management attribute relates to a reference level, its value for a cell expressing reference level value with respect to which elevation/depth values are established for that cell” (col. 11, line 58 – col. 12, line 35: **“a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength” “time”**).

With respect to claim 80, Gudat et al. discloses: “individualised dataset specific to an identified site-modifying mobile apparatus, said individualised dataset being prepared specifically for the execution of the method according claim 51, and

comprising selected data elements of said attribute worksite management and/or communication attribute parameters for the specific requirements of that site-modifying mobile apparatus" (see previously stated citations for the rejection of claim 51 above and col. 11, line 58 – col. 12, line 35: **"a grid that has been placed on the ground over areas where local area network coverage exists"** and **"a storage location which holds three values": "elevation", "signal strength" "time"; FIG. 12: 80; col. 16, line 49 – col. 17, line 23: "coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70"; and "The front shovel 80 is a track-type machine which performs various earthmoving operations on the work site 70. It will become apparent, however, that the principles and applications of the present invention will lend themselves to virtually any mobile tool or machine"**); and "said individualised dataset relates only to cells of a region of said worksite where said contour-modifying apparatus is programmed to be present over a determined time window" (col. 11, line 16 – col. 12, line 35: **"a grid that has been placed on the ground over areas where local area network coverage exists"** and **"a storage location which holds three values": "elevation", "signal strength" "time"; and "The age threshold of a work area might only be valid for a relatively short period of time where the terrain changes more rapidly. If a mobile node returns to a location that it has been to within the limit of time set by the age threshold).**

Regarding claim 99, Gudat et al. discloses: "means for acquiring worksite

attribute parameter value(s) comprising at least one of the set: a total station type of surveying device; an aerial view sensor; a GPS (global positioning by satellite) device; and an LPS (local positioning system)" (col. 11, lines 37-40: **"In a preferred embodiment of the present system, the position acquisition system 30 is a differential global positioning system (DGPS) system, although another technology could be substituted"**).

With respect to claim 100, Gudat et al. discloses: "data filtering means for selecting, from the stored attribute values, those items of information relevant to at least one of the set: selected cells; selected site-modifying apparatus; and selected tasks on said worksite"; and "means for sending said filtered information to targeted recipients" (FIG. 6: 20, 30, 32, 36; col. 10, lines 29 - 35: **"environment/terrain map"**; FIG. 7: **"UPDATE"**; col. 9, lines 14 - 55: **"The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data"**; FIG. 8, 50: **"HAS HISTORICAL SIGNAL STRENGTH EXPIRED?"**, 54; col. 10, line 29 - col. 11, line 6: **"The current strength of local area network communication is acquired" and "using RF propagation and communications model 34 to predict future signal strength value at block 54"**).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent No. 5,808,907 discloses a method for providing

information relating to a mobile machine to a user. US Patent No. 6,037,901 discloses a system and method for communicating information for fleets of earth-working machines. US Patent No. 5,646,844 discloses a method and apparatus for real-time monitoring and coordination of multiple geography altering machines on a work site. US Patent No. 5,631,658 discloses a method and apparatus for operating geography-altering machinery relative to a work site.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **MYRON WYCHE** whose telephone number is 571-272-3390. The examiner can normally be reached on Monday-Friday, 8 a.m. to 5 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on 571-272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Myron Wyche/
Patent Examiner
AU 2617

1/28/11

/Dwayne D. Bost/
Supervisory Patent Examiner,
Art Unit 2617